

# TORONTO STOCK EXCHANGE

## **LISTING STATEMENT**

### **ARCADIA NICKEL CORPORATION LIMITED**

(No Personal Liability)

Incorporated under the provisions of The Quebec Mining Companies' Act by Letters Patent dated 23rd February, 1953.

**1. Address of the Company's Head Office and of any other offices:**

Head Office: c.o. Messrs. Sylvestre & Sylvestre, 122 Murray Street, Sherbrooke, P.Q.  
 Executive Office: Suite 605, 137 Wellington Street West, Toronto 1, Ontario.

**2. Officers of the Company:**

OFFICE HELD	NAME	ADDRESS	OCCUPATION
President and Managing Director	Allen Elias Rosen	"Arcadia," Mississauga Road, Port Credit, Ontario	Prospector
Vice-President	Andrew Robertson	60 Highland Avenue, Toronto 5, Ont.	Mining Engineer
Vice-President	Roy Herbert Thomson	Mississauga House, Mississauga Road, Port Credit, Ontario	Publisher
Secretary-Treasurer	James Murray Anderson	150 Dawlish Avenue, Toronto 12, Ontario	Corporation Secretary
Asst. Secr'y-Treasurer	William Langill Hogarth, Jr.	120 Dundas Street East, Cooksville, Ontario	Secretary

**3. Directors of the Company:**

NAME	ADDRESS	OCCUPATION
Allen Elias Rosen	"Arcadia," Mississauga Road, Port Credit, Ontario	Prospector
Andrew Robertson	60 Highland Avenue, Toronto 5, Ontario	Mining Engineer
Roy Herbert Thomson	Mississauga House, Mississauga Road, Port Credit, Ontario	Publisher
James Murray Anderson	150 Dawlish Avenue, Toronto 12, Ontario	Corporation Secretary
Van Hoose Smith	90 Strathallan Boulevard, Toronto 12, Ont.	Metallurgical Engineer
Georges Sylvestre	122 Murray Street, Sherbrooke, Quebec	Notary Public
Lt.-Col. Sir Edward Stevenson	Seton House, Longniddry, East Lothian, Scotland	Executive

**4. Names and addresses of all transfer agents:**

Guaranty Trust Company of Canada, 70 Richmond Street West, Toronto 1, Ontario, and  
 610 St. James Street West, Montreal 3, Quebec.

**5. Particulars of any fee charged upon transfer other than customary government taxes:**

The Transfer Agent and Registrar is entitled to collect a fee of 25 cents per certificate for all certificates issued on the transfer for any shares of the capital stock of the Company, and to replace any lost, defaced or damaged certificate.

**6. Names and addresses of all registrars:**

Guaranty Trust Company of Canada, 70 Richmond Street West, Toronto 1, Ontario, and  
 610 St. James Street West, Montreal 3, Quebec.

**7. Amount of authorized capital: \$5,000,000.00.**

**8. Number of shares and par value: 5,000,000 shares; par value \$1.00 each.**

**9. Full details of all shares issued in payment for properties or for any other assets other than cash:**

April 10, 1953.....	900,000	Issued to Allen Elias Rosen at 10 cents per share as the complete consideration for the Bellechasse Group of Mining Claims described in Item 21.
August 5, 1955.....	50,000	Issued to Samuel Ciglen as part consideration for the Graham Township claims Nos. S-77214 to S-77229 inclusive described in Item 21.
Total.....	950,000	

This listing statement is a copy of the listing application made by the applicant company. The Exchange has received no consideration in connection with the issue of this listing statement other than the customary listing fee. The papers and exhibits submitted by the applicant company in support of the listing application are open for inspection at the general office of the Exchange.

10. Full details of all shares sold for cash.

Date	No. of Shares	Price per Share	Amount realized by Company
June 16, 1955.....	7	\$1.00	\$ 7.00
August 2, 1955 ..	200,000	.50	100,000.00
August 2, 1955 ....	200,000	.75	150,000.00
August 2, 1955 ....	200,000	1.00	200,000.00
August 2, 1955 ....	200,000	.10	20,000.00
August 2, 1955 ....	200,000	.15	30,000.00
August 2, 1955 ....	200,000	.25	50,000.00
August 2, 1955 ....	200,000	.35	70,000.00
August 2, 1955 ....	200,000	.40	80,000.00
Oct. 17, 1955.....	100,000	1.25	125,000.00
Oct. 17, 1955.....	100,000	1.25	125,000.00
Nov. 30, 1955.....	200,000	1.50	300,000.00
April 3, 1956.....	100,000	1.50	150,000.00
	100,000	1.75	175,000.00
Total.....	2,200,007		\$2,575,007.00

11. Total number of shares issued.

3,150,007.

12. Number of shares now in treasury or otherwise unissued.

1,849,993.

13. Particulars of any issued shares held in trust for the Company or donated for treasury purposes.

None.

14. Date of last annual meeting.

None held as yet.

15. Date of last report to shareholders.

None issued as yet.

16. Details of any treasury shares (or shares issued subject to payment or shares held for the benefit of the treasury) now under option or the subject of any underwriting or sales agreement. If none, this to be stated.

None.

17. Details of any shares pooled, deposited in escrow, non-transferable or held under any syndicate agreement or control.

810,000 shares, part of the stock issued in payment for the Bellechasse Group of Mining Claims as set out in Item 9, and all of the 50,000 shares issued as part consideration for the Graham Township claims are held in escrow by the Guaranty Trust Company of Canada, 70 Richmond Street West, Toronto 1, Ontario, subject to release pro rata to the parties entitled thereto only on the written consents of the Ontario Securities Commission and a majority of the Directors of the Company, and subject to transfer, hypothecation, assignment or other alienation only on the consent in writing of the Ontario Securities Commission.

18. Details of any registration with or approval or authority for sale granted by or any filing with a Securities Commission or corresponding Government body.

Prospectus dated the 11th day of July, 1955, filed with the Ontario Securities Commission and receipt for filing issued dated July 19, 1955. An amendment to the prospectus dated the 31st day of August, 1955, was subsequently filed with the Ontario Securities Commission.

19. Has any application for registration with, or approval or authority for sale by or any filing with a Securities Commission or corresponding Government body ever been refused, cancelled or revoked? If so, give particulars.

No.

20. Particulars of any bonds, debentures, notes, mortgages, charges, liens or hypothecations outstanding.	None.
<p>21. Enumerate fully, giving claim or property numbers, approximate acreage, townships and mining camp or oil field:</p> <p>(a) Properties owned where titles vested in Company.</p> <p>(b) Properties leased.</p> <p>(c) Properties otherwise held.</p> <p>Give particulars of title held by the Company in each instance, (e.g. patented, unpatented, Crown granted, held under mining license, perpetual lease, etc.)</p>	<p>See Schedule "A" on page 6.</p> <p>In addition to the properties described in the Schedule the Company holds oil leases on wildcat oil acreage in the Townships of Artemesia, Egremont, Glenalg, Holland, Ospray and Proton in Grey County and in the Township of Melancthon in Dufferin County comprising in all some 21,280 acres. No value is attached to these leases for the purpose of this application. The Company controls AER Nickel Corporation Limited, whose property is described in the report of Frederick C. Knight, B.Sc., dated February 20, 1956, by ownership of 81.7% of the 3,556,415 shares of the issued capital stock of the latter company.</p>
22. Full particulars of any royalties or other charges payable upon production from each individual property.	None.
23. Are any lawsuits pending against the Company or any of its properties, or are there any other circumstances which might affect the Company's position or title adversely? If so, explain fully.	No.
24. Describe plant and equipment on property.	The plant and equipment on the Company's properties are referred to in the reports of the engineers' reports.
25. Describe development accomplished and planned.	The Company proposes to carry out the development work recommended by the engineers reporting on the various properties of the Company.
26. Date and author of mining engineer's or petroleum geologist's report filed with this application and available for inspection on request.	Bellechasse, August 26, 1955; Douglas Parent. Rex Lake, February 18, 1956; Allan W. Grant. Blind River, February 22, 1956; Frederick C. Knight. Graham Township, February 21, 1956; Frederick C. Knight. Neelon Township, February 21, 1956; Frederick C. Knight. Kirkland Lake, February 22, 1956; M. W. Hotchkin. Denison Township Property of Arcadia Nickel Corporation Limited; and AER Nickel Corporation Limited, March 16, 1956; Lionel R. Simard.
27. Full particulars of production to date.	None.
28. Have any dividends been paid? If so, give dates, per share rate, and amount paid in dollars on each distribution.	No.

29. Name and address of the solicitor or attorney whose certificate that the applicant is a valid and subsisting company and that the shares which have been allotted and issued were legally created and are fully paid and non-assessable has been filed with the Exchange.

Messrs. Gagnon & de Billy,  
80 St. Peter Street,  
Quebec, P.Q.

Messrs. Tory, Miller, Thomson, Hicks, Arnold & Sedgewick,  
50 King Street West,  
Toronto, Ontario.

30. (a) Have any shares of the Company ever been listed on any other stock exchange? If so, give particulars.

Canadian Stock Exchange at Montreal, Quebec.

Date of listing, October 12, 1955.

(b) Is any application for listing the shares of the Company on any other stock exchange now pending or contemplated? If so, give particulars.

No.

(c) Has the listing of any shares of the Company ever been refused or deferred on any stock exchange? If so, give particulars.

No.

31. Particulars of the principal business in which each director has been engaged during the past five years, giving the length of time, position held and name of employing company or firm.

ALLEN ELIAS ROSEN- Prospector, has been engaged in prospecting for mineral deposits and exploring and developing the same. He is also Chairman of the Board and Director of Ascot Metals Corporation Limited; Vice-President and Director of Quebec Nickel Corporation Limited, Eastern Metals Corporation Limited and Eastern Smelting & Refining Company Limited.

ANDREW ROBERTSON- Mining Engineer, has been engaged in managing various mining operations, including Golden Manitou Mines Limited, Barvue Mines Limited and Mastadon Zinc Mines Limited. He is President and Managing Director of Yale Lead & Zinc Mines Limited, Ascot Metals Corporation Limited, Eastern Metals Corporation Limited, and Eastern Smelting & Refining Company Limited. He is Vice-President and Managing Director of Quebec Nickel Corporation Limited, Cobalt Consolidated Mining Corporation Limited, and Silanco Mining & Refining Company Limited, as well as being a Director of other mining companies.

Roy HERBERT THOMSON- Publisher and Radio Station Owner, has controlled and directed the affairs of Thomson Company Limited and Northern Broadcasting Company Limited. He is also Vice-President of Frontenac Broadcasting Company Limited, Kawartha Broadcasting Company Limited, and St. Lawrence Advertising Limited.

JAMES MURRAY ANDERSON- has carried on his profession as a Corporation Secretary at Toronto, Ontario. He is also Secretary-Treasurer of Ascot Metals Corporation Limited and numerous other companies.

VAN HOOSE SMITH- Metallurgical Engineer, has been engaged as technical representative of North American Cyanamid Limited, at Toronto, Ontario. He is also a Director of Ascot Metals Corporation Limited.

GEORGES SYLVESTRE, LL.D.- has carried on his profession as a Notary Public in and for the Province of Quebec, at Sherbrooke, Quebec. He is also a Director of Eastern Metals Corporation Limited, Ascot Metals Corporation Limited, Eastern Smelting & Refining Company Limited, and other companies.

LT.-COL. SIR EDWARD STEVENSON, K.C.V.O., M.C.- Executive, associated with the following Companies: Cairnton Trust and Finance Company Limited (Investment Company); The Investment and Property Trust Ltd. (Finance Company); Morgan Lyons and Co. Limited (Insurance); Hunter Robertson and Co. Limited (Textile Wholesalers); Coca-Cola Bottlers (Scotland) Limited; Trustee, Scottish Amicable Building Society; R. McLaren and Company Ltd.; and King and Ritchie Ltd. (Building Contractors and steel Scaffolders).

Dated at Toronto, Ontario, the 3rd day of April, 1956.



ARCADIA NICKEL CORPORATION LIMITED

"ANDREW ROBERTSON", Vice-President.

"J. MURRAY ANDERSON", Secretary-Treasurer.

STATEMENT SHOWING NUMBER OF SHAREHOLDERS

as of February 15, 1956

Number	Shares
29 Holders of 1 - 100 shares.....	2,702
178 " " 101 - 1000 " .....	110,500
41 " " 1001 - 2000 " .....	72,650
38 " " 2001 - 3000 " .....	104,900
16 " " 3001 - 4000 " .....	62,900
40 " " 4001 - 5000 " .....	196,700
57 " " 5001 - up " .....	2,399,655
399 Stockholders	Total Shares..... 2,950,007

# FINANCIAL STATEMENTS

## SUPPLEMENTAL FINANCIAL INFORMATION

Since December 31st, 1955, the date of the balance sheet published below, the Company has received \$325,000 from the sale of an additional 200,000 treasury shares as set out in item 10 on page 2, and its cash position and issued capitalization have been increased accordingly.

### BALANCE SHEET AS OF DECEMBER 31, 1955

#### ASSETS

Cash in bank.....		\$ 233,768.49
Accounts receivable.....		14,310.19
Investment in and advances to AER Nickel Corporation Limited:		
Investment, valued at cost, 2,504,000 shares.....	\$776,000.00	
Advances.....	824.12	
		<hr/>
		776,824.12
Mining claims and rights, subject to completion of title, at the consideration given therefor, consisting of 900,000 shares of capital stock at 10 cents per share, 50,000 shares of capital stock at \$1.00 per share, \$404,200.00 cash, less proceeds of sale of real property, being 1,400,000 shares of AER Nickel Corporation Limited valued at \$350,000.00 ( <i>see Note 1</i> ).....		
Petroleum leases and reservations, at cost.....	194,200.00	
Equipment.....	6,458.05	
Deferred charges.....	2,362.00	
		<hr/>
		181,154.46
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		\$1,409,077.31

#### LIABILITIES

Accounts payable.....		\$ 18,803.81
Owing to director.....		266.50
Capital Stock:		
Authorized—5,000,000 shares of \$1.00 par value each.		
Issued or to be issued:		
	No. of Shares and Par Value	
For cash.....	2,000,007	\$ 1,250,007.00
For mining claims and rights.....	950,000	810,000.00
	<hr/>	<hr/>
	2,950,007	\$1,390,007.00
		<hr/>
		1,390,007.00
		<hr/>
		\$1,409,077.31

NOTES: 1. Included in mining claims and rights is \$25,000.00 covering the cost of real property, buildings, works and plant of the property formerly known as Toburn Mine.

2. An option is outstanding to acquire 846,000 shares of AER Nickel Corporation Limited for \$211,500.00.

#### APPROVED ON BEHALF OF THE BOARD:

"ANDREW ROBERTSON", *Director*.

"J. MURRAY ANDERSON", *Director*.

#### AUDITORS' REPORT

We have audited the accounts of Arcadia Nickel Corporation Limited, No Personal Liability, for the period from February 23, 1953, the date of incorporation, to December 31, 1955. All our requirements as auditors have been complied with and we report that, in our opinion, the above balance sheet, supplemented by the notes thereto, is properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Company as at December 31, 1955, according to the best of our information and the explanations given us and as shown by the books of the Company.

THORNE, MULHOLLAND, HOWSON & McPHERSON,  
Chartered Accountants.

Toronto, Canada, February 22, 1956.

## DEFERRED CHARGES

**From February 23, 1953, the Date of Incorporation, to December 31, 1955**

Incorporation and organization expense.....	\$ 5,000.00
<b>Exploration and Development:</b>	
General exploration and development.....	\$ 44,174.44
Supplies.....	1,751.53
Field office expenses.....	1,614.65
Engineering and geologists.....	17,773.72
Wages.....	5,410.19
Drafting, reproduction and maps.....	108.07
Building maintenance.....	1,642.22
Municipal taxes.....	1,455.45
Government fees and expenses.....	1,050.54
Diamond drilling.....	58,678.32
Miscellaneous.....	1,207.77
	\$134,866.90
Sundry income from Toburn property.....	2,724.81
	132,142.09

**Administration:**

Legal fees.....	\$ 8,053.00
General office services.....	3,583.61
Telephone.....	2,224.27
Office salaries.....	3,645.53
Executives' salaries and expenses.....	5,537.64
Advertising and promotional expense.....	7,690.23
Trust company fees.....	4,076.59
Listing fees and expenses.....	3,750.60
Government fees.....	414.67
Licenses in mortmain.....	1,500.00
Insurance.....	1,238.33
Miscellaneous.....	2,297.90
	44,012.37
	\$181,154.46

## SCHEDEULE "A"

**A.—BELLECHASSE GROUP:**

The Company holds under the mining laws of the Province of Quebec a group of unpatented mining claims in Bellechasse Township, in the County of Bellechasse, in the Province of Quebec, comprising about 1,500 acres as follows:

Those certain unpatented mining claims comprising the southerly halves of Lots 2 to 11 inclusive, Range 1, and all of Lots 2 to 11 inclusive, Range 11, in the said Township of Bellechasse, duly recorded in the Office of the Mining Recorder for the Province of Quebec, known as the south half of Claim Numbers Q.67024-5-6-7-8-9-30-1-2-3, and all of Claim Numbers Q.67036 to Q.67045 inclusive, and which claims are held under Development Licenses 21223 to 21227 inclusive, and 21229 to 21233 inclusive.

**B.—The Company holds under the mining laws of the Province of Ontario four (4) groups of unpatented mining claims as follows:**

**(1) WERNER LAKE GROUP:**

Those twenty-nine (29) unpatented mining claims located in the Red Lake Area, in the Red Lake Mining Division, District of Kenora, Patricia Portion, duly recorded in the Office of the Mining Recorder for the Red Lake Mining Division, at Red Lake, Ontario, as numbers KRL.35738 to KRL.35766 inclusive.

**(2) BLIND RIVER AREA GROUP:**

Those eighteen (18) unpatented mining claims located in Township 163, in the District of Algoma, Province of Ontario, duly recorded with the Mining Recorder of the Sault Ste. Marie Mining Division at Sault Ste. Marie, Ontario, as numbers SSM.33717 to SSM.33734 inclusive.

**(3) GRAHAM TOWNSHIP GROUP:**

Those thirty-eight (38) unpatented mining claims located in the Township of Graham, in the District of Sudbury, in the Province of Ontario, duly recorded with the Mining Recorder of the Sudbury Mining Division at Sudbury, Ontario, as numbers S.77214 to S.77229 inclusive, and S.85402 to S.85423 inclusive.

**(4) NEELON TOWNSHIP GROUP:**

Those seven (7) unpatented mining claims located in the Township of Neelon in the District of Sudbury, in the Province of Ontario, duly recorded with the Mining Recorder of the Sudbury Mining Division at Sudbury, Ontario, as numbers S.77789 to S.77795 inclusive.

C.—The Company owns that property formerly known as the Toburn Mine, in the Kirkland Lake Mining Area, comprising the following patented mining claims located in the Townships of Teck and Lebel, in the District of Temiskaming, in the Province of Ontario, namely:

(1) PARCEL 8146, in the Register for Centre Section Temiskaming, as registered in the Land Titles Office, for the District of Temiskaming, at Haileybury, Ontario, comprising former mining claim L.1823 situate in the Township of Teck, containing by admeasurement Thirty-one and nine-tenths (31 9/10) acres, more or less;

EXCEPTING the surface rights to the following lands, being part of mining claim number L.1823:

- (a) Parcel of land having an area of 0.114 acres, more or less, as shown on Plan of Survey signed by A. Matheson, Ontario Land Surveyor, dated August 5th, 1946, and attached to transfer No. 86966 Temiskaming;
- (b) Parcel of land having an area of 0.39 acres, more or less, as shown on Plan of Survey signed by A. Matheson, Ontario Land Surveyor dated July 3rd, 1950, and attached to transfer number 98509 Temiskaming;
- (c) Parcel of land having an area of 0.138 acres, more or less, as shown on Plan of Survey signed by A. Matheson, Ontario Land Surveyor dated May 17th, 1950, and attached to transfer number 98556 Temiskaming;
- (d) Parcel of land having an area of 0.114 acres, more or less, as shown on Plan of Survey signed by A. Matheson, Ontario Land Surveyor dated May 17th, 1950, and attached to transfer number 98557 Temiskaming;

AND SUBJECT to an easement granted to The Corporation of the Township of Teck, under transfer number 64342, for a water and sewer line for the conduct of water and the right to construct, repair and other privileges and conditions more fully set out in said transfer, together with a right-of-way as a means of access for its engineers, officers and employees, etc., on that part of the surface rights of mining claim L.1823, in the Township of Teck, containing by admeasurement 0.237 acres, more or less, as shown on Plan of Survey made by A. Matheson, Ontario Land Surveyor, dated February 27th, 1937, and attached to transfer number 64342 Temiskaming.

ALSO SUBJECT to a right-of-way granted to The Hydro-Electric Power Commission of Ontario, under transfer number 66677 Temiskaming, for a transmission line and the right to construct, repair and other privileges and conditions more fully set out in said transfer.

(2) PARCEL 8147 in the Register for Centre Section Temiskaming, as registered in the Land Titles Office for the District of Temiskaming, at Haileybury, Ontario, comprising former mining claim number L.1822, situate in the Township of Teck, containing by admeasurement Twenty-six and one-tenth (26 1/10) acres, more or less;

EXCEPTING thereout the surface rights to part of mining claim L.1822;

- (a) an area of 2.11 acres, more or less, as shown on Plan of Survey made by A. Matheson, Ontario Land Surveyor, dated July 22nd, 1944, and attached to transfer number 82470 Temiskaming, and
- (b) an area of 1.82 acres, more or less, as shown on print of Plan No. 203-5173, attached to transfer number 105648 Temiskaming.

SUBJECT to an easement granted to The Corporation of the Township of Teck, under transfer number 64342 Temiskaming for a water and sewer line for the conduct of water and the right to construct, repair and other privileges and conditions more fully set out in transfer number 64342 Temiskaming, together with a right-of-way as a means of access for its engineers, officers, etc., on that part of the surface rights of Part of Mining Claim L.1822, in the Township of Teck, containing by admeasurement 0.375 acres, more or less, as shown on Plan of Survey made by A. Matheson, Ontario Land Surveyor, dated February 27th, 1937, and attached to transfer number 64342 Temiskaming;

AND SUBJECT to a right-of-way granted to The Hydro-Electric Power Commission of Ontario, under transfer number 66677 Temiskaming for a transmission line, and the right to construct, repair and other privileges and conditions more fully set out in said transfer number 66677 Temiskaming, on part of the above mining claim L.1822, as shown on Plan Number 204-1003 attached to the said transfer;

AND SUBJECT to a right-of-way and easement granted to The Hydro-Electric Power Commission of Ontario, under transfer number 98803 Temiskaming, to erect and maintain poles, anchors, and to string wires thereon and to operate the same and other provisions and conditions as in transfer number 98803 Temiskaming, over part of the above mining claim L.1822, as set out in said transfer.

(3) PARCEL 585, in the Register for Centre Section Temiskaming, as registered in the Land Titles Office at Haileybury, Ontario, comprising former mining claim L.2378, situate in the Township of Lebel, in the District of Temiskaming, containing by admeasurement Thirty-four and two-tenths (34 2/10) acres, more or less;

(4) PARCEL 586, in the Register for Centre Section Temiskaming, as registered in the Land Titles Office at Haileybury, Ontario, comprising former mining claim number L.2377, situate in the Township of Lebel, in the District of Temiskaming, containing by admeasurement thirty-three (33) acres, more or less;

(5) PARCEL 5944, in the Register for Centre Section Temiskaming, as registered in the Land Titles Office at Haileybury, Ontario, covering the surface rights of former mining claim number H.R. 1440, situate in the Township of Teck, in the District of Temiskaming, containing by admeasurement thirty-three (33) acres, more or less;

(6) PARCEL 5945, in the Register for Centre Section Temiskaming, as registered in the Land Titles Office at Haileybury, Ontario, comprising the surface rights only of mining claim H.R. 1441 (L.23750) situate in the Township of Teck, containing by admeasurement forty-two and eight-tenths (42 8/10) acres, more or less,

EXCEPTING the surface rights of part of said mining claim H.R. 1441, transferred to Nipissing Central Railway Company, being composed of the right-of-way of the Nipissing Central Railway Company, containing by admeasurement two and nine-tenths (2 9/10) acres, more or less, as shown on Plan attached to transfer number 43123 Temiskaming;

AND SUBJECT to a right-of-way for a transmission line, transferred to The Hydro-Electric Power Commission of Ontario, and the right to construct, repair and other privileges and conditions more fully set out in transfer number 66677 Temiskaming, on a portion of the surface rights of the above mining claim H.R. 1441, located across said mining claim H.R. 1441.

(7) PARCEL 3310, in the Register for Centre Section Temiskaming, as registered in the Land Titles Office at Haileybury, Ontario, comprising mining claim H.R. 1441, situate in the Township of Teck, in the District of Temiskaming, containing by admeasurement forty-two and eight-tenths (42 8/10) acres, more or less. The surface rights were severed from this Parcel and the said surface rights now comprise said Parcel 5945, Centre Section Temiskaming.

(8) PARCEL 3311, in the Register for Centre Section, Temiskaming, as registered in the Land Titles Office at Haileybury, Ontario, comprising mining claim No. H.R. 1442, situate in the Township of Lebel in the District of Temiskaming, containing by admeasurement thirty-two and five-tenths (32 5/10) acres, more or less,

EXCEPTING the surface rights of part of said mining claim H.R. 1442, transferred to Nipissing Central Railway Company, being composed of the right-of-way of the said Nipissing Central Railway Company, containing by admeasurement one and seven-tenths (1 7/10) acres, more or less, as shown on plan prepared by G. P. Angus, O.L.S. dated at North Bay, Ontario, June 7th, 1923, and attached to transfer number 43123 Temiskaming;

SUBJECT to a right-of-way granted to The Hydro-Electric Power Commission of Ontario, for a transmission line, and the right to construct, repair, and other privileges and conditions more fully set out in transfer number 66677, on part of the above mining claim H.R. 1442, and subject to a right and easement granted to The Hydro-Electric Power Commission of Ontario, by transfer number 98803 Temiskaming, dated May 5th, 1950, to erect and maintain poles, anchors and to string wires thereon, and to operate the same over part of the above parcel, and being a portion of Mining Claim L.2373, in the Township of Lebel, in the District of Temiskaming.

(9) PARCEL 3312, in the Register for Centre Section Temiskaming, as registered in the Land Titles Office at Haileybury, Ontario, comprising Mining Claim H.R. 1444, situate in the Township of Lebel, in the District of Temiskaming, and being land and land covered with water of part of Gull Lake, containing by admeasurement forty-two and two-tenths (42 2/10) acres, more or less,

EXCEPTING the surface rights of part of said Mining Claim H.R. 1444 transferred to the Nipissing Central Railway Company, being composed of the right-of-way of the Nipissing Central Railway Company, containing by admeasurement one and seven-tenths (1 7/10) acres, more or less, as shown on plan attached to transfer number 43123 Temiskaming, made by G. P. Angus, O.L.S., and dated at North Bay, Ontario, June 7th, 1923;

ALSO RESERVING a strip of land one chain in perpendicular width along the shore of Gull Lake, said reservation being of the surface rights only;

SUBJECT to a right-of-way granted to The Hydro-Electric Power Commission of Ontario, by transfer number 66677 Temiskaming, for a transmission line, and the right to construct, repair and other privileges and conditions more fully set out in above transfer number 66677 Temiskaming, on part of above Mining Claim H.R. 1444,

AND SUBJECT ALSO to the right and easement granted to The Hydro-Electric Power Commission of Ontario, by transfer number 98803 Temiskaming, to erect and maintain poles, anchors and to string wires thereon, and to operate the same, and other provisions and conditions, as is set out in the said transfer, over part of the above parcel.

(10) PARCEL 214, in the Register for Temiskaming, as registered in the Office of Land Titles at Haileybury, Ontario, comprising Mining Claim H.R. 1440, in the Township of Teck, in the District of Temiskaming, containing by admeasurement thirty-three (33) acres, more or less, being mining lands only. The surface rights of the said lands were severed from the above parcel and are now parcel 5944 Centre Section Temiskaming.

(11) PARCEL 217, in the Register for Temiskaming, as registered in the Office of Land Titles at Haileybury, Ontario, comprising Mining Claim H.R. 1443, in the Township of Lebel, in the District of Temiskaming, containing by admeasurement thirty-five and one-tenth (35 1/10) acres, more or less;

SUBJECT to a right-of-way granted to The Hydro-Electric Power Commission of Ontario, for a transmission line and the right to construct, repair and other privileges and conditions more fully set out in transfer number 66677 Temiskaming, on part of above Mining Claim H.R. 1443.

(12) PARCEL 547, in the Register for Temiskaming, as registered in the Office of Land Titles, at Haileybury, Ontario, comprising Mining Claim L.1821, in the Township of Lebel, in the District of Temiskaming, containing by admeasurement thirty-one and seven-tenths (31 7/10) acres, more or less;

SUBJECT to a right-of-way granted to The Hydro-Electric Power Commission of Ontario, for a transmission line and the right to construct, repair and other privileges and conditions more fully set out in transfer number 66677 Temiskaming, on part of the above Mining Claim L.1821;

AND SUBJECT ALSO to a right and easement granted to The Ontario Hydro-Electric Power Commission of Ontario to erect and maintain poles and anchors, and to string wires thereon, and to operate the same and other provisions and conditions as set out in transfer number 98803 Temiskaming, over part of the above parcel, and being a portion of Mining Claim L.1821;

AND EXCEPTING from said parcels the surface rights covering certain lots laid out on a plan of a proposed subdivision over parts thereof.

D.—The Company owns Lot 12 in the Third Concession of the Township of Denison, in the District of Sudbury, mining claim S-11033, being land under water in the north part of Lot 11 in the Second Concession, and mining claim S-11034, being land under water in the south part of Lot 11 in the Second Concession in Denison Township, in the Sudbury Mining Division, Province of Ontario.

Claims S-11033 and S-11034 together comprise the bed of a small lake. The property covers an area of approximately five hundred and thirty-three (533) acres and comprises Parcel 610 in the Register for District of Algoma, North Section, and Parcels 7985 and 7986 in the Register for District of Sudbury, West Section.

## GEOLOGISTS' REPORT

### REPORT ON THE OPERATIONS OF ARCADIA NICKEL CORPORATION LIMITED

Denison Township — District of Sudbury Province of Ontario

#### SUMMARY

Arcadia Nickel Corporation Limited is developing two adjoining properties on the Worthington Offset about 25 miles west of Sudbury. There are deposits of copper-nickel-platinum on both properties. One property is owned outright; the other is owned by Aer Nickel Corporation Limited which is controlled by Arcadia. Both properties are patented.

Several copper-nickel-platinum deposits are known along the Worthington offset. The best known is the Worthington Mine which was operating at a depth of 1700 feet vertically in 1920 when the surface pillar caved in engulfing the plant. It has not operated since. Four similar deposits are present on the properties under consideration, two on each. The Howland and Robinson deposits are on the Aer property and the Gersdorffite and the "Z" are on the Arcadia holdings.

Small production was obtained from the Howland deposit in 1916 since which time it has been inactive. The Robinson deposit has been developed by a three-compartment vertical shaft to a depth of 980 feet with levels established at depths of 200, 350, 500, 650, 800 and 950 feet. Except for the 200 and 500-foot levels, little work has yet been done on the other levels. Lateral work on the 200 and 500 levels placed in sight 450 tons per vertical foot (on each level) of ore grading 17 lbs. of copper, 12 lbs. of nickel and possibly \$2.50 values in gold, silver and metals of the platinum group. These two levels have not been fully developed and it is expected that another 100 tons per vertical foot may yet be developed. The orebodies on these two levels are ready for stope preparation and production from them could be obtained in a very short time.

The Gersdorffite deposit has been investigated by vertical drill holes spaced at 50 ft. centres. This work has indicated geological conditions similar in every way to the Robinson deposit with probably greater ore-making potential. Copper-nickel-platinum mineralization of interest has been found from surface to a vertical depth of 900 feet the greatest depth at which the ore zone has been tested. It is considered that this deposit has been drilled sufficiently and that the next step is its investigation by underground means.

This will be done initially from the Robinson shaft, probably driving out on the bottom and on an intermediate level while awaiting the completion of a new production shaft planned to be located on Arcadia ground and servicing the four zones. Little is known about the "Z" deposit as it does not outcrop and was found by exploratory drilling.

The present program includes the dewatering and rehabilitation of the Robinson shaft and workings and the underground development of the Howland and Gersdorffite deposits. Dewatering of the shaft has advanced to the 500 ft. level at which point the water level is being maintained pending delivery of minor electrical equipment which is delaying operation of the hoist. This operating difficulty is expected to be overcome within a week. The 200 ft. level is being rehabilitated. Stope preparation is to start as soon as the hoist is in operation.

Production at as early a date as possible to take advantage of present high prices of metals is the paramount objective.

In fairly assessing the potential of the properties the partially developed 200 and 500 foot levels of the Robinson workings are used as samples across the deposit. The figures for the ore in sight on these two levels have been extended to arbitrary but reasonable limits. As these deposits are similar in so many respects to the Worthington Mine and as this deposit is known to extend to a depth of 1700 feet at least, the potential of these deposits to 2000 feet has been calculated. Assessment of potentiality beyond this has not been attempted.

The potential for the four zones calculated in this way is as follows:

Tons potentially available from the Robinson shaft.....	1,306,250
Tons potentially present above 2000 ft. vertical depth.....	2,750,000

Translated into pounds of metal, in place, the potentialities are as follows:

	Nickel lbs.	Copper lbs.
Potential available from present Robinson shaft.....	15,675,000	22,206,250
Potential to 2000 ft. vertical depth.....	33,000,000	46,750,000

The schedule of net returns and estimated costs established by Mr. Andrew Robertson, Mining Engineer, when applied to the estimates in this report show that a net profit per ton mined of \$6.92 before taxes and write-offs may be expected. If the Company is successful in selling its nickel at \$1.00 per pound the net profit above could be raised by \$4.44 per ton to \$11.36. One company official has expressed confidence that this can be done.

Metallurgical investigations on concentrating the ore are just getting started as fresh material from underground is required for these tests.

Arcadia Mining Corporation Limited is actively developing two adjoining properties in Denison township in the district of Sudbury, Ontario. Both properties are of interest because of the presence of deposits of copper-nickel-platinum within their boundaries.

On one property there is a vertical shaft to a depth of 980 feet. From this, six levels have been partly developed. The current program consists of further developing these levels with early production the objective.

The second property has been investigated by diamond drilling — a program which is still continuing. This has shown deposits similar in type and mineralization to the one which has been investigated by underground work. As these two deposits are not far apart, there is a great likelihood that they will be mined as one operation. The investigation of a second deposit on the second property is just getting underway.

## PROPERTIES

### LOCATION, ACCESS, etc.

The properties are situated about one and one-half miles north from Worthington, a station on the Sudbury-Sault Ste. Marie branch of the Canadian Pacific Railway. Old Highway No. 17 passes through Worthington which is about 25 miles west of Sudbury. A gravelled road leads from Worthington to the property.

Worthington is the site of the previous operations of the Worthington Mine, operated by International Nickel Corporation Ltd. The mine was worked to a vertical depth of 1700 feet. Operations ceased in 1920 when the surface pillar of the workings caved, engulfing the entire surface plant.

A lake on one of the properties is expected to supply all foreseeable water requirements.

### OWNERSHIP

It is understood that the first property, that of Aer Nickel Corporation Ltd., consists of the west half of lot 12, concession II, Denison township. The lot is patented. This is the property on which the shaft and underground workings are situated. It is also understood that Arcadia Nickel Corp. Ltd. controls Aer Nickel Corp. Ltd. through majority stock ownership.

The wholly owned property of Arcadia Nickel Corporation Ltd. consists of the east half lot 12, concession II, all of lot 12, concession III and water claims Nos. S-11033 and S-11034 which are partly in lot 11, concession II and partly in lot 11, concession III. All these holdings are patented.

### GEOLOGY

The area in which the property lies is generally underlain by sediments considered to be of Temiskaming, early PreCambrian age. The sediments generally strike north easterly but are locally contorted. They have been intruded by a north easterly striking quartz diorite dyke. This cuts the sediments at varying angles and runs for several miles. It is known as the Worthington offset, so named because of the Worthington Mine located on it. The offset varies in width from 100 to 250 feet. There is some suggestion that it is not completely continuous. The rock here is called quartz diorite. It is similar in composition to the host rock in other offset type deposits in the Sudbury district. Northwesterly striking diabase dykes are the youngest consolidated rocks in the district and cut all others. The offset varies in width from 100 to 250 feet and dips steeply to the south.

There is more than a suggestion that the offset dyke is compound. It appears that the original fracture was healed by diorite and that subsequent rupture along the pre-existing zone of weakness was followed by the intrusion of the quartz diorite. Along certain portions of the dyke the original diorite was altered to actinolite. This occurred in the wider portions of the dyke and formed favourable places for the deposition of the copper-nickel-platinum minerals following fracturing and/or shearing.

### Copper Nickel Occurrences

Several copper-nickel-platinum bearing zones are known to occur along the Worthington offset. The Worthington Mine is the best known of these.

Along the offset there is an almost rhythmic recurrence of mineralized zones at intervals of about 1400 feet. On the properties in question four such zones are known — the Howland, the Robinson or Denison, the Gersdorffite and the "Z" or Swamp zone in a length of 4300 feet along the offset. Of these the first two are on the Aer Nickel property and the last two on the Arcadia.

Sulphides occur in two ways in the dyke (1) as a uniform dissemination in the massive quartz diorite (usually below ore grade) and (2) as irregular veins and patches of massive sulphides replacing Q.D. which shows conspicuous inclusions of actinolite. Arsenides and sulpho-arsenides occur in the mineralized zones and it is thought that the precious metals may occur with these minerals.

The most common sulphides are chalcopyrite, pyrrhotite and pentlandite with lesser amounts of niccolite, gersdorffite and millerite. Gold, platinum and palladium occur in appreciable amounts associated with the sulphides. An occurrence of sperrylite, platinum diarsenide, in massive chalcopyrite has been reported.

### AER NICKEL CORPORATION LTD.

The Howland pit showing on the property is situated about one mile northeast, along the offset, from the Worthington Mine. Worthington No. 2 lies about midway between the two.

### HOWLAND PIT

This mineralized deposit lies astride the boundary between the Aer Nickel property and that owned by International Nickel Company to the west. In previous operations the surface showings were mined by open pit. The latest official surface survey reveals that most of this pit is on the Aer property. The pit is now full of water and no recent investigations have been carried on in this vicinity. This will be done when better weather conditions prevail.

Some diamond drilling was done by previous operators to investigate under the pit for extension of the orebody. Conditions here are complicated by a later or younger diabase dyke which displaced the structure and interposed a considerable section of this non productive rock which must be penetrated before the ore zone can be reached in any program of investigation from surface.

As regards the material recovered from the open pit operations, the following is quoted from the Report of the Ontario Nickel Commission, 1917, p. 35:

"This is known as the Howland prospect or mine, and the ore gave an assay of 5.1% nickel and 2.1% copper. Some 1724 tons of ore were mined from this deposit in 1916, of which 486 tons were purchased by the Mond Nickel Company."

Hand sorting to increase grade was used at the Worthington Mine and it is probable that such an operation was also used at this property. A method to do this mechanically is under study.

The diabase dyke referred to above strikes northwesterly and dips at about 60 degrees to the east. It cuts the offset into two parts — a hanging wall wedge near surface and a footwall portion which would be at considerable depth. At surface the "actinolite boulder" zone is more than 100 feet wide where cut off by the intruding dyke. The diabase dyke is approximately 200 feet wide. As the size of the actinolite zone appears to govern the size of orebodies, the footwall portion of the actinolite has sufficient potentiality as regards tonnage to make its investigation an important part of a development program.

The development of ore in this area can best be done from underground and a drift for this purpose was started on the 950 foot level in previous operations. Present plans include the continuation of this drift and the thorough investigation of this area on the 950 foot level.

Only a limited tonnage of ore can be expected from the hanging wall wedge and little, if any, immediate work is planned for this section. The investigation of the larger potentialities in the footwall section is planned in the early stages of the exploration program.

Due to many unknown factors, the most important of which have been outlined above, it is not possible at this stage to assess the value of this occurrence in terms of an ore potentiality in tons and grade.

Topography strongly suggests the presence of a fault cutting the offset, which varies considerably in width, between this zone and the next one to the east — the Robinson deposit. The attitude of this fault, if such exists, and the dislocation caused by it, if any, are not yet known. It is not considered that it will have any important bearing on ore occurrence and hence mining operations.

### THE ROBINSON DEPOSIT

This deposit is situated some 1600 feet northeasterly from the Howland Pit along the Worthington offset.

Development of this deposit is the most advanced of any on the property under consideration.

In previous operations a vertical three-compartment shaft was sunk to 980 feet. From this shaft, levels were established at 200, 350, 500, 650, 800 and 950 feet from surface. A short adit was also driven into the southerly dipping ( $80^{\circ}$ S) offset from the north or footwall side about 70 feet below the surface of the hill. It encountered copper-nickel mineralization but has not yet been connected with the other underground workings.

Beyond establishing stations almost no work has been done except on the 200 and 500 foot levels.

The No. 1 lens on the 200 foot level has been well exposed by drifting and crosscutting. Further development work could well reveal one or more additional lenses of ore on this level. Raises and stope preparation are among the early plans for this level.

This level has been made accessible by dewatering. It has been remapped and resampled. Results of this work are considered later in this report.

From records in company files the development of the 500 foot level is the most advanced. Plans indicate the presence of at least two lenses of ore with the probability of a third. These have been exposed by drifting and crosscutting and are ready for stope preparation. The shaft has been dewatered to this level which has not yet been made accessible although this is expected in the very near future.

Below the 500 foot level an ore lens has been cut by the shaft and persists to the 650 foot level station.

On the 800 foot level plans indicate only 50 feet of drifting and of this the last 35 feet was in ore, with drift width as a minimum. The face is still in ore.

On the 950 foot level only 60 feet of lateral work is indicated and ore lenses were not reached.

Thus in determining the stage of underground development of the property, two levels are nearly ready for production and the other four levels are in the early stages of development.

## PRESENT PROGRAM

The present program consists of dewatering the workings completely; rehabilitating the shaft and levels by replacing timber where required and installing pipe, rail, etc.; geological mapping and sampling; the driving of lateral headings on all levels including headings to the Howland zone to the west, and to the Gersdorffite zone to the east on the bottom level as well as on an intermediate level; preparation for production on the 200 foot and 500 foot levels on the Robinson deposit; erection of surface plant, metallurgical testing, etc.

Early production to take advantage of present high prices for nickel and copper is the paramount objective.

At the present time the surface plant is nearing completion temporarily using diesel power — conversations towards bringing in Hydro electric power have begun. Some delay has been caused in putting the hoist into operation due to the non-arrival of minor electrical parts. Delivery of the final parts has been promised for this week. The dewatering progress has been held at the 500 foot level pending operation of the hoist. This has been done as a safety precaution. Dewatering of the rest of the workings and their rehabilitation is considered a routine operation once hoisting facilities are available. Metallurgical tests have been started on material from the 200 foot level.

## ACTINOLITE ZONES

The ore occurs associated with relatively flat shears cutting "actinolite pebble" zones. The size of the ore lens is related to the size of the actinolite zone; the wider the actinolite zone the larger the ore lens. There also appears to be a repetition of the shears at roughly 150 foot intervals in the vertical plane. This is not too definite yet as factual information is quite incomplete. Wide zones of actinolite seem to occur in expansions of the offset.

On the Robinson deposit the actinolite exposed at surface measures roughly 240 feet long by 100 feet wide. Very little, if any, ore is exposed at surface. On the 200 foot level the actinolite zone varies in width from 20 ft. to 150 ft. and extends for a length of 500 ft. (not yet fully developed). One lens in the widest portion contains an estimated 440 tons of ore per vertical foot. On the 500 ft. level the actinolite zone appears to be of the order of 100 feet wide and exposed for a length of 350 feet (not fully developed). Two lenses in the wider portions of the actinolite zone are thought to contain 450-500 tons per vertical foot.

## ESTIMATES OF ORE

Ore sight on the partially developed 200 foot and 500 foot levels is of the order of 450 tons per vertical foot. It seems reasonable to expect that further work on these levels will expose at least another 100 tons per vertical foot. Grade is indicated to be 0.86% copper and 0.62% nickel. Mineralized lenses are up to 50 feet wide so that dilution may be a minor factor. Assay walls are expected. Without introducing an unknown dilution factor each ton of ore mined may be expected to contain approximately 17 lbs. of copper and 12 lbs. of nickel. Precious metals — gold, platinum and platinoids are also present in the ore. It is expected that values in these metals could average about \$2.50 though there is insufficient factual evidence on which to base this conclusion. The precious metal content could be more, it might be less.

Various estimates have been prepared during previous operations when more of the underground workings were available for study than at present. One of these was 810,000 tons to 1000 feet averaging 0.82% nickel, 1.00% copper with possibly \$3.00 per ton in gold and metals of the platinum group. Other estimators introduced a sorting factor which has a tendency to cloud the issue.

The potential tonnage indicated by the ore placed in sight on the 200 foot and 500 foot levels and available from the present shaft on this zone is of the order of 550 tons per vertical x 950 ft. vertical depth = 522,500 tons with a content near 17 lbs. of copper, 12 lbs. of nickel and \$2.50 in gold and metals of the platinum group. This estimate is very fluid and the figures are likely to be revised either way.

This by no means represents the total potential of the Robinson deposit. There are sound reasons to at least double the above figure because of increased depth possibilities. The Worthington Mine working on a similar deposit on the same offset with similar geological conditions is understood to have followed its ore to a vertical depth of 1700 feet without "bottoming" the ore deposit.

As the Robinson zone is well protected on dip by company holdings no figure can be placed on the ultimate potential tonnage which may be mined from the deposit.

Results of metallurgical investigations which are just started, could have an important bearing on estimates of tonnage by permitting the mining of lower grade material.

To the east of the Robinson deposit the offset appears to be slightly displaced or perhaps narrow. Beyond this there is the Gersdorffite zone on property wholly owned by Arcadia Nickel Corporation Ltd.

## ARCADIA NICKEL CORPORATION LTD.

On this property two deposits are known. The first of these, the Gersdorffite has been known for a long time. Currently it is being investigated by vertical drill holes. The Gersdorffite deposits occur some 1600 feet northeasterly along the Worthington offset from the Robinson deposit.

The second deposit referred to as the "Z" or Swamp zone lies 1200 feet northeasterly from the Gersdorffite along the Worthington offset. It does not outcrop but was found by a diamond drill hole collared 200 feet west of the east boundary of the present holdings. International Nickel Company owns the property to the east.

## GERSDORFFITE DEPOSIT

During the present program of investigation 20 vertical holes spaced at 50 foot centres have been drilled. These are disposed in a somewhat irregular area with extreme dimensions of 200 feet by 350 feet. Of the 20 holes drilled only 3 were blanks in that they did not intersect copper-nickel sulphide mineralization of interest. Two other holes were exploratory holes drilled at considerable distance away from the Gersdorffite deposit.

The results from this drilling indicate conditions similar to those in the Robinson deposit. The variations in width of the offset and of the contained actinolite zones, the presence of shears and of accompanying copper-nickel mineralization are all similar to and considered just as promising as the Robinson deposit.

In this type of occurrence it has been found impossible to correlate features with any degree of certainty between vertical holes spaced 50 feet apart. Inclined holes have not been satisfactory in previous operations. Closer spacing of vertical holes would yield more information for correlation purposes but the expenditure of the considerable sums of money involved in such a program is not considered advisable. The results from the work already done are considered to be such as to demand the investigation of the deposit by underground work.

The results from a few of the holes, selected to show mineralization at various depths, are shown below. These holes are by no means the worst nor should they be considered typical or average.

### Shallow - Hole No. 56-5 Vertical: 100' W. and 50' N. from Hole 55-1

From	To	Feet	% Cu	% Ni
67.0	68.0	1.0	0.47	1.08
127.1	128.5	1.4	0.27	2.89
140.6	141.6	1.0	2.00	0.20
147.6	148.9	1.3	0.46	1.00
173.9	182.7	8.8	0.43	1.10
192.1	194.3	2.2	0.98	0.21
200.7	205.0	4.3	0.24	0.87
225.3	230.8	5.5	0.57	1.48
244.9	346.7	101.8	0.54	0.39
373.0	387.4	14.4	0.97	0.51
401.4	408.4	7.0	2.35	0.82

### Medium - Hole No. 55-1 Vertical

From	To	Feet	% Cu	% Ni	Oz. Pt.
489.0	519.6	30.6	0.63	0.57	.002
544.8	625.2	80.4	1.14	1.17	.068
686.2	706.4	20.2	0.62	0.65	.052

### Deep - Hole No. 55-5 Vertical: 50' S from Hole 55-1

565.5	606.9	41.4	0.72	0.28	.014
627.3	695.0	67.7	0.43	1.14	.0096
782.3	791.1	8.8	1.08	1.17	.029
893.7	898.7	5.0	3.65	0.41	.011

The drilling done shows that mineralization extends from surface to approximately 900 feet vertical depth. It also indicates that the "actinolite boulders" occur in zones up to 200 feet in width. Such bulges are considered to have great potentiality as hosts to ore lenses.

Investigation up to this time has been restricted to depths less than 1000 feet as ore below this could not be mined through the present Robinson shaft.

Ore potentialities of this deposit are considered to be as least as good as if not better than the Robinson deposit. All ore making conditions are present and the favored host rock seems to be present in greater widths.

Present plans for this deposit include its underground investigation by drifting from the 950 foot level of the Robinson workings. Consideration is also being given to drifting over on an intermediate level. Plans are being prepared regarding the sinking of a new production shaft between the Robinson and Gersdorffite deposits. If, or when, this is done, the new shaft will probably be sunk on the Arcadia property.

As the ore appears similar in every way to that of the Robinson deposit the solution of metallurgical problems is expected to be the same and it is also expected that the ore will be treated in the same plant.

## "Z" or SWAMP ZONE

As mentioned earlier this deposit does not outcrop. It is situated 1200 feet from the Gersdorffite. Only one hole has been drilled in this vicinity and it intersected the mineralization which appears to be similar in geology, character, mineralization, etc. as the other deposits described. Too little factual information is yet available regarding this deposit to make a sound appraisal of its potentialities beyond the probability that as all the deposits along the Worthington offset are similar in character and were probably formed in a similar way, there is a likelihood that they are all comparable in size as well.

## ORE POTENTIAL OF THE PROPERTIES

Factual evidence regarding size and grade of the ore present in the deposits under consideration are regarded to be as follows:

### Howland Pit Deposit

Ore mined from surface pit. The deposit is separated into two by a diabase dyke of which the portion lying underneath the dyke is expected to continue in the normal way.

### Robinson Deposit

Ore exposed on three partially developed levels at 200, 500 and 800 foot depths vertically.

On the 200 and 500 foot levels some 450 tons per vertical foot are in sight and another 100 tons per vertical foot can be expected. Grade is of the order of 17 lbs. of copper, 12 lbs. of nickel and possibly \$2.50 in gold and metals of the platinum group. Boundaries of the stopes will be "assay walls" with gradually diminishing grade.

### Gersdorffite Deposit

Diamond drilling has shown conditions to be similar to the Robinson with the possibility of the presence of larger occurrences of the favorable host rock. The deposit has been tested to the present depth of the Robinson shaft with favorable results.

### "Z" or Swamp Deposit

Little is known of this except that it is present. It must be taken into account in evaluating the potential of the property.

### Worthington Mine

The work at this mine shows that deposits of this type along the Worthington offset persist to a depth of 1700 feet at least.

By considering the 200 foot and 500 foot levels of the Robinson deposit as samples across the deposit and extending quantitative results obtained from sampling these levels to arbitrary but reasonable limits, the following tabulation is prepared.

Vertical Interval	Howland Deposit Ft.	Robinson Deposit Tons	Gersdorffite Deposit Tons	"Z" Deposit Tons	Total Tons
0 to 950	?	$950 \times 550 = 522,500$	$950 \times 550 = 522,500$	$\frac{1}{2} \times 950 \times 550 = 261,250$	1,306,250
950 to 2000 ft.	$\frac{1}{2} \times 1050 \times 550 = 577,500$	$1050 \times 550 = 577,500$			1,306,250
2000 ft.	550 = 288,750			?	1,443,750
		Potential to 2000 feet vertical depth.....			2,750,000
0 to 2000 ft.	288,750	1,100,000	1,100,000	261,250	

The potential indicated in the above table in terms of pounds of metals contained in the ore in place is as follows:

Nickel Lbs.	Copper Lbs.
15,675,000	22,206,250
33,000,000	46,750,000

Potential available from present Robinson Shaft.....

Potential to 2,000 feet vertical depth.....

This represents a fair assessment of the potentialities of the deposits to a depth of 2000 feet. As nothing is known beyond this depth further potentialities cannot be estimated at this time.

### ECONOMICS

Metal markets are at present in a state of flux with the price of copper moving upward and that for nickel largely unknown because of rumored special contracts at higher than quoted prices. The schedule of net returns and estimated costs established by Mr. Andrew Robertson in a letter to the Toronto Stock Exchange dated February 28, 1956, referring to a listing application by Arcadia Nickel Corporation, would show the following based on the revised estimate of grade in this report:

	Value per ton mined
17 lbs. of copper @ 81% overall recovery @ 40¢/lb. net.....	\$ 5.51
12 lbs. of nickel @ 81% overall recovery @ 50¢/lb. net.....	4.86
Gold, silver and platinum group metals (est.).....	2.50
Total net value.....	\$ 12.87
(Gross value \$17.88 per ton mined)	
Operating Costs (Robertson).....	5.95

Net profit per ton mined before taxes and write-offs.....

Company officials are very hopeful of obtaining a contract for the sale of nickel at a premium price. If they are successful in getting even \$1.00 per pound for their nickel, the net profit indicated above could be raised by  $(\$1.00 - 64¢ \times 12 \text{ lbs.}) = \$4.44$  to \$11.36 per ton. One company official has expressed confidence that this can be done.

LIONEL R. SIMARD,

Consulting Geologist.

Toronto, Ontario, March 16th, 1956.

## CERTIFICATE

I, Lionel R. Simard, of the City of Toronto in the Province of Ontario, hereby certify that:

1. I am a practising Consulting Geologist with offices at Suite 403 - 25 Adelaide St. West, Toronto, Ontario.
2. I am a graduate of McGill University and hold the degree of M.Sc. from that university and am also a member of the Association of Professional Engineers of the Province of Ontario.
3. I have no interest either directly or indirectly and I do not expect to receive any interest either directly or indirectly in the properties covered in this report or in the securities of Arcadia Nickel Corporation Limited, or in the properties or in the securities of Aer Nickel Corporation Limited.
4. The accompanying report is based in part on company records and on publications of the Ontario Department of Mines (Report of Ontario Nickel Commission 1917). Current work is going on under my supervision. I have visited the property periodically since November, 1955.
5. This certificate applies to the Denison Township properties of Arcadia Nickel Corporation Limited and Aer Nickel Corporation Limited in the Province of Ontario.

DATED at Toronto this 16th day of March, 1956

"LIONEL R. SIMARD"

# ENGINEER'S REPORT

## BELLECHASSE TOWNSHIP, PROVINCE OF QUEBEC

### PROPERTY

Arcadia Nickel Corporation holds under the mining laws of the Province of Quebec a contiguous group of 20 mining claims situated in Bellechasse township, in the county of Bellechasse, P.Q. comprising about 1500 acres as follows:

South Half Range I								Full Range II									
Lot	Regis.	Dev.	Area	Lot	Regis.	Dev.	Area	No.	Cert. No.	No.	Lic. No.	Acres	No.	Cert. No.	No.	Lic. No.	Acres
No.	Cert. No.	No.	Lic. No.	Acres													
2	CG3650 #1	Q67024	21223	50				2	CG3762 #1	Q67036	21229	100					
3	CG3650 #2		25	21223	50			3	CG3762 #2		21229	100					
4	CG3751 #1		26	21224	50			4	CG3764 #1		21230	100					
5	CG3751 #2		27	21224	50			5	CG3764 #2		21230	100					
6	CG3752 #1		28	21225	50			6	CG3765 #1		21231	100					
7	CG3752 #2		29	21225	50			7	CG3765 #2		21231	100					
8	CG3753 #1		30	21226	50			8	CG3766 #1		21232	100					
9	CG3753 #2		31	21226	50			9	CG3766 #2		21232	100					
10	CG3754 #1		32	21227	50			10	CG3647 #1		21233	100					
11	CG3754 #2		33	21227	50			11	CG3647 #2		21233	100					
				500				10				1000					
10																	

### LOCATION:

Two good gravel roads, that branch off the St. Magloire-St. Camille highway, cross the property on the range lines between ranges 1 and 2, making the property very accessible. The town of St. Magloire with a population of 2000 people (350 families) is within 3 miles of the claim group by road.

Quebec City is approximately 65 miles west north west of St. Magloire and the State of Maine is 9 miles to the east.

### FACILITIES & NATURAL RESOURCES:

Approximately 30% of the claim group is under cultivation or pasture land, the rest due to the rocky nature of the soil and rock outcrops is in bush, mostly scrub hardwoods.

A large creek known as Riviere aux Orignaux flows across the property from north to south through lots Nos. 2, 3, and 4, a good water supply is assured; the creek is at an elevation of 1300' and the highest point, on lot 9 R 2 is 1600' above sea level. The Quebec Central Railway is located six miles south of the property.

Electric power is available from the Shawinigan Water & Power Co. who supply power to this area. A good supply of local labor is available in the area.

The main highways are maintained the year long.

### GEOLOGY:

The preliminary map of the St. Magloire Area No. 999 issued by the Department of Mines, Quebec, 1953 with geology by Jacques Beland indicates a north easterly trend to the geological formation in the area. The country rock is classified by Beland as being of the Beauceville group of Ordovician age. This group is composed of the following formations that were found in geological reconnaissance: gray and black slates; chert and cherty slates; basic volcanics. This above group has been intruded by Gabbro and diorite gabbro of Post-Ordovician age.

### ECONOMIC GEOLOGY:

On Panet Metals Corp. Ltd. adjoining property to the east of the Arcadia Nickel Corporation's claim group, a strong mineralized zone containing three separate massive sulphide lenses with values in zinc, copper, lead, gold and silver and with indications of tin and cobalt as well as substantial amounts of pyrite and pyrrhotite have been located through float found on surface and since have been drilled to outline approximately 300,000 tons of lean ore to 300' depth grading 2.68% zinc, 0.40% copper, 0.45% lead, 0.062 ounce gold and 0.58 ounce silver. This occurrence is located on lot 1 Range 1 Bellechasse and adjoining lots to east namely lots 46-45-44 Panet Range 1.

On the Arcadia Nickel Corporation's holdings and the adjoining property to the south (Range 3) i.e. now N. A. Timmins (1938) claims, gold was found prior to 1949 in quartz veins and quartz float, galena and arsenopyrite was also found in these quartz floats and extraordinary good gold values were had in some specimen. Subsequent diamond drilling did not locate any zones of economic importance as yet.

### GEOPHYSICAL SURVEYS:

An aeromagnetic survey was made over this area in 1951-52 by Geophysics Section, Geological Survey of Canada, Department of Mines & Technical Surveys and map 115 G St. Magloire area was compiled. A ground magnetometer survey as well as a self potential survey was conducted by Arcadia Nickel Corporation in May and June 1955.

The ground survey has shown up in detail what the aeromagnetic map indicated in a broad sense, that is, there appears to be an area of consistent medium low intensity that crosses the property in a N.E. direction from about 500 to 1000' North of the 1-2 range line; that the main gabbro and gabbro diorite area in range 2 between lots 6 to 11 stand out as an area of highs in which narrow low zones are found.

The self potential highs check closely the magnetic highs especially on that zone that extends in a N.E. direction across the property about 500 to 1000' north of the 1-2 range line, the zone is no doubt the sedimentary-igneous contact. Float has been found that consists of massive pyrite, pyrrhotite chalcopyrite, and specularite, these may be the materials that caused the two instruments to react. A strong magnetic zone is found in the southern portion of range 2, not very far from where good gold quartz floats with diorite were found.

### RECOMMENDATIONS:

A diamond drilling contract has been given for a minimum of 5000' of drilling to start as soon as possible.

The sedimentary-igneous contact will be explored with the first holes to be drilled on the projected strike of the Panet Metal Zone that lines up with this contact zone on Arcadia Nickel. Holes will also be drilled on the other interesting anomalous zones.

### CONCLUSIONS:

Strong and well defined base metal zones have been located adjoining to and appear to strike into Arcadia Nickel Corporation's group of claims. Base metal float has been found in numerous places on this property as well as auriferous quartz float and therefore good possibilities exist in finding base metal and precious metal ore bodies.

Respectfully Submitted,

DOUGLAS PARENT, P.Eng.

### CERTIFICATE

I, DOUGLAS PARENT, of St. Fabien de Panet in the Province of Quebec, do hereby certify as follows:

1. That I am a Mining Engineer and reside in the Province of Quebec.
2. That I am a graduate of New Mexico Institute of Mining and Technology and that I have been practising my profession since 1934.
3. That I have no personal interests, either directly or indirectly, in the property of Arcadia Nickel Corporation Ltd., mentioned in the accompanying report, and do not expect to receive, either directly or indirectly, any interests in the securities of that Company.
4. That my report, dated August 26, 1955, on the said property of Arcadia Nickel Corp., Ltd. is based on personal examinations.
5. That the said data contained in the report and plans are based on actual figures prepared by myself and my staff during the months of May, June and July, 1955, at which time the surveys were made.

Dated at St. Fabien de Panet, this 26th day of August, 1955.

DOUGLAS PARENT, B.Sc.

Witness: GEO. BEAUDIN.